Waste Management Plan for the Operable Unit 3-14 Tank Farm Soil and Groundwater Remedial Investigation/ Feasibility Study (Draft)

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Idaho Completion Project
Idaho Falls, Idaho 83415

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Assistant Secretary for Environmental Management
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ABSTRACT

This Waste Area Group 3, Operable Unit 3-14 waste management plan identifies the waste types expected to be generated during implementation of Phase I and Phase II of the Operable Unit 3-14 remedial investigation/feasibility study of the Idaho Nuclear Technology and Engineering Center Tank Farm. This plan addresses various waste streams, sources, and classifications and provides for the disposition of the waste streams generated in support of the Operable Unit 3-14 remedial investigation/feasibility study. It also addresses necessary actions to characterize and classify a new waste stream not previously identified. Each waste type will be managed in accordance with applicable state and federal regulations. The specific requirements for characterization, storage, and disposition are discussed in this waste management plan.

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ACRONYMS

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
HLW	high-level waste
HWD	hazardous waste determination
ICDF	INEEL CERCLA Disposal Facility
IDW	investigation-derived waste
INEEL	Idaho National Engineering and Environmental Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
IWTS	Integrated Waste Tracking System
LLW	low-level waste
MLLW	mixed low-level waste
NWPA	Nuclear Waste Policy Act of 1982
OU	operable unit
PCB	polychlorinated biphenyl
PCM	petroleum-contaminated media
PPE	personal protective equipment
RCRA	Resource Conservation and Recovery Act
RI/FS	remedial investigation/feasibility study
TRU	transuranic
TSCA	Toxic Substances Control Act
TSD	treatment, storage, or disposal
WAC	waste acceptance criteria
WGS	Waste Generator Services
WMP	waste management plan
WTS	waste technical specialist

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1. INTRODUCTION

This waste management plan (WMP) was prepared for the Idaho Nuclear Technology and Engineering Center (INTEC) Clean/Close Project at the Idaho National Engineering and Environmental Laboratory (INEEL). This WMP provides guidance for waste management necessary to identify disposal criteria for waste materials associated with the Operable Unit (OU) 3-14 remedial investigation/feasibility study (RI/FS).

The primary objective of this WMP is to properly identify the types of waste that are anticipated to be generated during implementation of the OU 3-14 RI/FS and present a strategy for compliantly managing the waste. This plan addresses the waste characterization strategy; requirements for waste storage, labeling, packaging and transportation, and treatment, if required; and designated facilities for ultimate disposal of the waste. This plan also identifies required records and reports and discusses strategies for minimizing waste during RI/FS activities.

1.1 Purpose and Objectives

This WMP is intended to provide a management and planning tool for identifying and managing waste streams generated from the OU 3-14 RI/FS.

2. SITE BACKGROUND

A current, detailed description of the site background of the INEEL facility, specifically the INTEC Tank Farm, and a detailed account of the source, nature, and extent of contamination present at specific release sites located at the INTEC Tank Farm are provided in the "Operable Unit 3-14 Tank Farm Soil and Groundwater Remedial Investigation/Feasibility Study Work Plan (Draft)."[a] The investigation logic for known release sites also is included in the Work Plan.

3. WASTE GENERATION

The following sections provide descriptions of the waste streams and associated disposal options for that waste expected to be generated as a result of the OU 3-14 RI/FS.

Waste streams will be characterized as required by U.S. Department of Energy orders and in accordance with "Hazardous Waste Determination" of "Standards Applicable to Generators of Hazardous Waste" (40 CFR 262.11). Hazardous waste determinations (HWDs) will be performed on the waste streams as described in the following sections.

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a. DOE-ID, 2003, "Operable Unit 3-14 Tank Farm Soil and Groundwater Remedial Investigation/Feasibility Study Work Plan (Draft)," DOE/ID-10676, Rev. 1, Draft, U.S. Department of Energy Idaho Operations Office, December 2003.

3.1 Waste Identification

Table 1 identifies and describes waste types, management strategies, and the proposed disposition of each waste type that may be generated as a result of the OU 3-14 RI/FS.

4. GENERAL REQUIREMENTS

Waste resulting from the OU 3-14 RI/FS may include personal protective equipment (PPE), unused or unaltered sample material, analytical residues and sample preservation residues, used sample containers, excess soil, petroleum-contaminated media, decontamination fluids, contaminated equipment, and miscellaneous waste streams. This waste will be managed in accordance with this WMP.

4.1 Waste Minimization and Segregation

Wherever possible, waste minimization strategies will be employed during this RI/FS. Waste minimization for this project will be accomplished through design and planning to ensure efficient operations that will not generate unnecessary waste. As part of the prejob briefing, emphasis will be placed on waste reduction philosophies and techniques, and personnel will be encouraged to continuously attempt to improve methods for minimizing waste generation. Practices to be instituted to support waste minimization include but are not limited to the following:

- Restricting material entering radiological buffer areas to those needed for work performance
- Substituting recyclable items for nonhazardous and easily disposed of items
- Reusing items when practical
- Segregating contaminated from uncontaminated waste.

4.2 Characterization Strategy

Waste generated during the OU 3-14 RI/FS will be characterized using approved sampling and analytical information (both existing and new), or process knowledge. Initial waste characterization based solely on process knowledge must ensure that the chemical, physical, and radiological properties of the waste are adequately determined. The designation must be accomplished with sufficient accuracy to ensure that subsequent treatment, storage, or disposal (TSD) of the waste is protective of human health and the environment.

As outlined in Section 3, preliminary classifications have been made of anticipated waste types based on process knowledge and existing characterization data regarding the source(s) of the expected waste. Subsequent to generation, any or all of the waste may be reclassified. Before ultimate disposal, waste may be characterized further to ensure compliance with the *ICDF Complex Waste Acceptance Criteria*, hereinafter referred to as the ICDF WAC (DOE-ID 2003b), or other applicable disposal facility waste acceptance criteria (WAC). Appropriate and required documentation of waste characterization will be completed in compliance with the applicable WAC.

Table 1. Waste management during the Operable Unit 3-14 remedial investigation/feasibility study.

CERCLA Waste Type	Description	Management Strategy	Disposition[a]
Industrial waste	Solid waste generated by industrial processes, manufacturing, and support processes in accordance with "Guidelines for the Storage and Collection of Residential, Commercial, and Institutional Solid Waste" (40 CFR 243). Certain waste, such as nontraining-related PPE; PCM such as soil, sand, gravel, or other earthen material; or engine oil filters, requires a waste-stream-specific, documented waste determination in accordance with the *Idaho National Engineering and Environmental Laboratory Waste Acceptance Criteria*, hereafter in this table referred to as the INEEL WAC (DOE-ID 2003a). Activities that may generate industrial waste include administrative activities, sampling, and cleanup (e.g., petroleum spills).	All waste must be characterized, documented, and tracked if necessary as described in this WMP. Industrial waste will be transported to the Central Facilities Area landfill for disposal. Recyclable and reusable items will be managed under this WMP and the INEEL WAC (DOE-ID 2003a). Requirements for disposal (described in the INEEL WAC [DOE-ID 2003a]) must be met.	The INEEL Landfill Complex (at Central Facilities Area) or recycled or reused under the INEEL WAC (DOE-ID 2003a) and this WMP.
Hazardous waste	Waste designated as hazardous by the U.S. Environmental Protection Agency regulations, "Definition of Hazardous Waste" of "Identification and Listing of Hazardous Waste" (40 CFR 261.3), and regulated under RCRA. Hazardous waste streams may include but are not limited to PPE, unused or unaltered samples, drill cuttings, purge water, analytical residue and sample preservative residue, used sample containers, PCM, development and purge water, decontamination fluids, contaminated equipment, and miscellaneous waste. Activities that may generate hazardous waste include sampling and monitoring, investigation activities, and decontamination.	All waste must be characterized, documented, and tracked as described in this WMP. If necessary, solid waste streams will be staged and managed in accordance with this WMP. If liquid waste is generated, this waste will be disposed of at the ICDF if it meets the *Waste Acceptance Criteria for ICDF Evaporation Pond*, hereinafter refered to in this table as the ICDF Evaporation Pond WAC (DOE-ID 2003d). If it does not meet the ICDF Evaporation Pond WAC, an alternate disposal facility will be determined.	ICDF landfill (soil and debris). ICDF evaporation pond (liquid). In the event waste does not meet the *Waste Acceptance Criteria for ICDF Landfill* (DOE-ID 2003c), the waste will be containerized, treated, or stored at the ICDF as necessary or required until appropriate on-Site or off-Site treatment, storage, or disposal is arranged.
LLW	Waste that is not high-level radioactive waste, spent nuclear fuel, TRU waste, by-product, or naturally occurring radioactive material. The LLW streams may include but are not limited to PPE, unused or unaltered samples, drill cuttings, purge water, analytical residue and sample preservative residue, used sample containers, PCM, development and purge water, decontamination fluids, contaminated equipment, and miscellaneous waste. Activities that may generate LLW include sampling and monitoring, investigation activities, and decontamination.	All waste must be characterized, documented, and tracked if necessary as described in this WMP. If necessary, solid waste streams will be staged and managed in the staging and storage area and in accordance with this WMP. If liquid waste is generated, this waste will be disposed of at the ICDF if it meets the ICDF Evaporation Pond WAC (DOE-ID 2003d). If it does not meet the ICDF Evaporation Pond WAC (DOE-ID 2003d), an alternate disposal facility will be determined.	ICDF landfill (soil and debris). ICDF evaporation pond (liquid). In the event waste does not meet the *Waste Acceptance Criteria for ICDF Landfill* (DOE-ID 2003c), it will be containerized, treated, or stored at the ICDF as necessary or required until appropriate on-Site or off-Site disposal is arranged.

Table 1. (continued).

CERCLA Waste Type	Description	Management Strategy	Disposition[a]
MLLW	Waste containing both radioactive and RCRA hazardous components. MLLW streams may include but are not limited to PPE, unused or unaltered samples, drill cuttings, purge water, analytical residue and sample preservative residue, used sample containers, PCM, development and purge water, decontamination fluids, contaminated equipment, and miscellaneous waste. Activities that may generate MLLW include sampling and monitoring, investigation activities, and decontamination.	All waste must be characterized, documented, and tracked if necessary as described in this WMP. If necessary, solid waste streams will be staged and managed in accordance with this WMP. If liquid waste is generated, this waste will be disposed of at the ICDF if it meets the ICDF Evaporation Pond WAC (DOE-ID 2003d). If it does not meet the ICDF Evaporation Pond WAC, an alternate disposal facility will be determined.	ICDF landfill (soil and debris). ICDF evaporation pond (liquid). In the event waste does not meet the *Waste Acceptance Criteria for ICDF Landfill* (DOE-ID 2003c), the waste will be containerized, treated, or stored at the ICDF as necessary or required until appropriate on-Site or off-Site treatment, storage, or disposal is arranged.
HLW	The highly radioactive waste material resulting from the reprocessing of spent nuclear fuel, including liquid waste produced directly in reprocessing and any solid material derived from such liquid waste that contains fission products in sufficient concentrations, and other highly radioactive material that is determined, consistent with existing law, to require permanent isolation.	The classification of waste that was generated during reprocessing of spent nuclear fuel is currently the subject of ongoing litigation that is now on appeal to the U.S. Court of Appeals for the Ninth Circuit. While it currently appears that certain "wastes incidental to reprocessing," such as PPE, can be classified as LLW or TRU waste, the "Radioactive Waste Management," (DOE O 435.1) evaluation process for determining waste to be outside the HLW category was held by the U.S. District Court of Idaho to be in conflict with the NWPA definition of HLW and the requirement of the NWPA for disposal of all HLW to the national spent nuclear fuel repository (currently planned to be at Yucca Mountain, Nevada). If the court decision is not overturned or superseded by amendment to the NWPA, all waste that appears to meet the HLW definition will have to be programmed for disposal at the Yucca Mountain facility. The cost of removing waste, which might otherwise be safely immobilized in place, and preparing it for transportation to the repository could be very high, and the schedule for remedial action would need to be extended substantially.	If a classification of HLW is made, then all such waste must be disposed of at the Yucca Mountain repository.

Table 1. (continued).

CERCLA Waste Type	Description	Management Strategy	Disposition[a]
Alpha LLW	Waste that contains >10 nCi/g but <100 nCi/g of TRU isotopes. Alpha LLW may include but is not limited to solid sampling and monitoring materials, tarps, and other material from staging activities; equipment that cannot be decontaminated; and other radiologically contaminated material, such as petroleum-contaminated media (i.e., soil or other absorbent material containing radiological- and petroleum-contaminated material). Activities that may generate alpha LLW include sampling and monitoring, investigation activities, and decontamination.	All waste must be characterized, documented, and tracked if necessary as described in this WMP. If necessary, solid waste streams will be staged and managed in accordance with this WMP. If liquid waste is generated during remediation, this waste will be disposed of at the ICDF if it meets the ICDF WAC (DOE-ID 2003b). If it does not meet the ICDF WAC, an alternate disposal facility will be determined.	This waste will be containerized, treated, or stored at the ICDF as necessary or required until appropriate off-Site disposal is arranged, if required.
Mixed TRU waste	Waste that contains TRU isotopes exceeding 100 nCi/g and RCRA hazardous components. Mixed TRU waste may include but is not limited to solid sampling materials, equipment that cannot be decontaminated, tank sediment, tank, piping, and soil. Activities that may generate mixed TRU waste include sampling and monitoring, investigation activities, and decontamination.	All waste must be characterized, documented, and tracked, if necessary, as described in this WMP. If necessary, solid waste streams will be staged and managed in accordance with this WMP. If liquid waste is generated during remediation, this waste will be disposed of at the ICDF if it meets the ICDF WAC (DOE-ID 2003b). If it does not meet the ICDF WAC, an alternate disposal facility will be determined.	In the event that TRU mixed waste is generated, it will be containerized and stored at the ICDF as necessary or required until it can be shipped to a treatment or disposal facility. If the final waste form is determined to be TRU mixed waste, the waste will be disposed of at the Waste Isolation Pilot Plant, subject to WAC compliance.

a. Most industrial waste will be sent to the landfill at Central Facilities Area for disposal (subject to meeting the INEEL WAC). Industrial waste that does not meet the INEEL WAC (DOE-ID 2003a) will be managed at the ICDF Complex under this WMP.

CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act
HLW = high-level waste
ICDF = INEEL CERCLA Disposal Facility
INEEL = Idaho National Engineering and Environmental Laboratory
LLW = low-level waste
MLLW = mixed low-level waste
NWPA = Nuclear Waste Policy Act of 1982
PCM = petroleum-contaminated media
PPE = personal protective equipment
RCRA = Resource Conservation and Recovery Act
TRU = transuranic
WAC = waste acceptance criteria
WMP = waste management plan

4.3 INEEL Waste Management and Disposition

Waste generated at the INEEL as a result of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedial activities includes industrial waste, hazardous waste, low-level waste (LLW), alpha LLW, mixed transuranic waste, and mixed low-level waste (MLLW). These various types of waste may contain contaminants such as polychlorinated biphenyls (PCBs) or asbestos that might be regulated by the Toxic Substances Control Act (TSCA) and the National Emission Standards for Hazardous Air Pollutants. This waste may be disposed of at the INEEL if it meets the specific facility's WAC. Typically, most of the CERCLA-generated waste will be sent to the INEEL CERCLA Disposal Facility (ICDF) for disposal although CERCLA-generated industrial waste is generally disposed of at the INEEL Landfill Complex.

4.3.1 Waste Planned for Disposal at the INEEL CERCLA Disposal Facility

Most of the waste anticipated to be generated during the OU 3-14 RI/FS is planned for disposal at the ICDF. This waste will be required to meet the ICDF WAC (DOE-ID 2003b), the *Waste Acceptance Criteria for ICDF Landfill* (DOE-ID 2003c), and the *Waste Acceptance Criteria for ICDF Evaporation Pond* (DOE-ID 2003d).

4.3.2 Waste Transported to Non-INEEL Facilities

Some of the waste generated during the OU 3-14 RI/FS may not meet the ICDF WAC (DOE-ID 2003b) and would be sent to a TSD facility located outside INEEL boundaries. The CERCLA waste that is sent outside INEEL boundaries for TSD shall meet the requirements of the U.S. Department of Transportation (DOT), the receiving facility's WAC, and the off-Site rule requirements, "Procedures for Planning and Implementing Off-Site Response Actions" of "National Oil and Hazardous Substances Pollution Contingency Plan" (40 CFR 300.440).

4.3.3 Waste Planned for Disposal at Non-CERCLA INEEL Facilities

Appropriateness of a waste disposal option is based on whether a particular waste could reasonably be expected to cause or contribute to an environmentally significant release of hazardous substances from a selected facility. Releases of hazardous substances to the air or groundwater in quantities that could reasonably be expected to pose a significant threat to human health and the environment are considered environmentally significant. Any waste described in this plan that would be reasonably expected to exceed this threshold criterion will be evaluated separately to determine the suitability of the waste for disposal. This particular waste will not be shipped for disposal unless special provisions are made and documented to mitigate the potential for release. The primary list of hazardous substances under CERCLA is contained in "Designation of Hazardous Substances" of "Designation, Reportable Quantities, and Notification" (40 CFR 302.4). As the remedial process proceeds and additional information becomes available, reviews that are more detailed will be conducted to ensure that waste planned for specific disposal options meets the detailed WAC for each specific facility.

4.3.4 Managing Industrial Waste for Disposal at the INEEL Landfill Complex

Industrial waste is solid waste that is neither radioactive nor hazardous. At the INEEL, industrial waste streams are typically disposed of at the INEEL Landfill Complex. Many types of CERCLA industrial waste are generated in the area of contamination as a result of material used in a project that the generator believes has not been contaminated with either radioactive or hazardous materials. This absence of contamination is validated by radiation surveys, radiological smears and analysis, or visual inspections (visual staining or discoloration of soil and/or debris).

A general HWD is prepared for routinely generated industrial waste to document that the waste is neither radioactive nor hazardous. Industrial waste streams that have a higher probability of containing constituents restricted from disposal are considered nonroutine and will undergo a waste-stream-specific HWD. This determination is accomplished by sampling, performing radiation and contamination surveys, using process knowledge of the waste-generating process (e.g., determining if the waste was mixed with a listed waste or derived from the TSD of a listed waste), and evaluating the composition of the industrial waste. Waste Generator Services (WGS) evaluates CERCLA industrial waste to determine if the waste meets the industrial WAC. Management of industrial waste is performed in accordance with company procedures.

Industrial waste is generally collected in industrial waste collection dumpsters posted with signs describing acceptable and prohibited items. However, to ensure that disposal of industrial waste is protective to human health and the environment, the INEEL Landfill Complex employs the following additional methods:

- Characterization of industrial waste by WGS to ensure that requirements of the WAC are met before shipment to the facility
- Prohibition of the receipt of radioactive and hazardous waste
- Prohibition of the receipt of free liquids at the landfill
- Periodic inspection of received waste to validate that it meets the acceptance and waste determination criteria
- Periodic location and sampling of groundwater monitoring wells near the INEEL Landfill Complex.

Environmental monitoring data have not indicated an environmentally significant release of hazardous substances to the air or groundwater from current industrial waste disposal operations at the INEEL Landfill Complex. The current disposal area at the INEEL Landfill Complex is a solid waste management unit. As such, if future environmentally significant releases to the air or groundwater are identified, those releases may be subject to response action, as stipulated by Section V of the *Federal Facility Agreement and Consent Order for Idaho National Engineering Laboratory* (DOE-ID 1991).

4.3.5 Waste Packaging and Transportation

Before CERCLA waste is transported to a disposal facility, WGS and Packaging and Transportation Department personnel will be contacted to ensure the waste is properly handled, packaged, labeled, and transported in accordance with the INEEL Packaging and Transportation Program and the safety basis requirements of "Nuclear Safety Management" (10 CFR 830, Subpart B) and DOT hazardous materials regulations required by "Packaging and Transportation Safety"(DOE O 460.1A) for the on-Site transport of LLW and MLLW soil from INTEC to the ICDF.

Packaging of waste designated for shipment to ICDF will be in compliance with the OU 3-13 Record of Decision (DOE-ID 1999) applicable, relevant, or appropriate requirements and the ICDF WAC (DOE-ID 2003b). Appropriate personnel will be consulted before generation of any waste to identify proper containment to be used for each waste stream. The CERCLA waste-generating sites must ensure waste materials are packaged in containers that are in good condition, materials are compatible with the waste stored in them, and void spaces in containers are reduced as much as possible. The ICDF Complex management should be consulted before the use of containers other than those specified in the ICDF WAC.

Waste containers in staging areas will be labeled and marked in accordance with the applicable receiving facility's requirements. Specifically, waste destined for the ICDF shall be labeled in accordance with the labeling requirements identified in that facility's WMP. Industrial waste destined for the INEEL Landfill Complex shall meet the *Idaho National Engineering and Environmental Laboratory Waste Acceptance Criteria* (DOE-ID 2003a) and be labeled in accordance with applicable requirements. The CERCLA waste destined for an off-Site facility shall, at a minimum, have an Integrated Waste Tracking System (IWTS) label, radiation label (if applicable), and a CERCLA waste label to ensure that personnel know the contents within the container. The CERCLA waste label shall identify the project that generated the waste (e.g., OU 3-14), the date the waste container was filled, the waste description (e.g., debris or drill cuttings), and the waste hazards (e.g., radioactive, PCBs, or Resource Conservation and Recovery Act [RCRA] waste codes). Before off-Site transport, additional labeling may be required, including DOT labeling.

Any information not known when waste containers are initially labeled will be added when the information is known. As applicable, WGS personnel will provide IWTS bar codes for containers. A new bar code will be affixed to each container when waste is first placed in the container. Waste labels must be visible, legibly printed or stenciled, and placed on the container in such a manner that a full set of labels and markings is visible during an inspection.

Sampling and transportation will occur in compliance with the applicable WAC, DOT requirements, and RCRA regulations. Contact with the disposal facility must be made in advance to allow both the facility and the shipper the time required to make any preliminary arrangements.

4.3.6 Managing Waste Information

Information pertaining to waste characteristics, waste generation and storage locations, disposition plans, and waste shipments for CERCLA MLLW, CERCLA LLW, CERCLA mixed transuranic waste, CERCLA high-level waste, alpha LLW, and nonroutine CERCLA industrial waste generated at the INEEL are maintained in an electronic database called the IWTS. Material profiles are developed in IWTS to store characterization information that is specific to a particular waste stream. As the waste is generated, information pertaining to individual containers of waste is reported in individual IWTS container profiles. The information in the IWTS material profiles and container profiles is certified by a WGS waste technical specialist (WTS), who certifies that an HWD has been performed and that the information is complete and accurate based on the analytical data or process knowledge used for characterization. The WTS also certifies that the information for the container falls within the bounds of the parent material profile. A different WGS WTS follows with an independent review of the information for completeness and accuracy. Finally, the information in the material and container profiles is approved by a WGS WTS who authorizes WGS to dispose of the waste in accordance with the disposition path defined in the IWTS material profile. The WGS WTS also verifies that the waste meets the acceptance criteria of the facility or facilities where the waste will be disposed of. This approval must not be performed by the WTS performing the review.

Waste technical specialists use the information in the IWTS material and container profiles to ensure that CERCLA waste meets the acceptance criteria of the receiving facility. The IWTS also tracks shipments of waste to various areas or facilities using specific IWTS shipping tasks. Receiving locations, including those located outside the boundaries of the INEEL, must approve waste shipments before they are shipped. This approval is not documented in the IWTS database but is maintained in a hard copy file with the waste characterization information.

It should be noted that not all CERCLA industrial waste is tracked in the IWTS database. An example of industrial waste that is not tracked in the IWTS is routine office waste. This waste is placed into industrial waste receptacles that are placarded with information pertaining to what is permissible to be placed in the receptacles. Some industrial waste is tracked in the IWTS database to ensure that the INEEL Landfill Complex is aware that the waste is being shipped and that it meets the facility's acceptance criteria. An example of industrial waste that would be tracked in the IWTS is color-coded material such as yellow shoe covers. Since yellow shoe covers are typically used for protection against radioactive contamination, a special profile has been prepared for color-coded PPE that has been surveyed and found not to be contaminated with radioactivity or that has been used for training purposes. Another example would be containers that have had all contents removed, and the empty containers are not radiologically contaminated. Container profiles are typically not prepared for industrial waste because the waste is shipped to the facility in reusable receptacles or in bulk shipments or is noncontainerized.

There may be MLLW and possibly TSCA PCB waste generated at physical interfaces between Voluntary Consent Order- and CERCLA-managed programs. The MLLW or TSCA PCB waste generated to support CERCLA activities will be managed as CERCLA investigation-derived waste (IDW). The MLLW and TSCA waste generated to support Voluntary Consent Order activities will be managed in accordance with applicable RCRA and TSCA regulations.

4.3.7 Staging, Inspection, and Record Keeping

The use of staging piles during implementation of this plan is not planned. Rather, the solid, nonflowing IDW is planned to be actively managed within the work zone. Upon the containers being filled, the waste will be transferred to the ICDF within 5 working days. If this timeframe cannot be met and waste staging is necessary, a temporary unit will be established and managed as described below. Waste transferred to the ICDF for management will be managed in accordance with that facility's work plan. Waste staging piles may be used to manage waste soil piles or containers of CERCLA mixed waste (Figure 1). Staging piles may be used for a period of up to 24 months unless an extension is provided by the U.S. Environmental Protection Agency, Idaho Department of Environmental Quality, and U.S. Department of Energy. If a decision is made to stage waste before treatment and disposal, staging will occur near the investigation site. The staging and inspection of waste generated from this activity will be performed in accordance with this WMP. The following list outlines the requirements applicable to staging piles and their use:

- If staging piles will be used for staging of solid, nonflowing IDW, the waste will be placed on impervious liners.

- Construction of the base will ensure there is at least a 2% slope away from the soil waste pile to ensure proper drainage.

- The bottom liner material for the soil will be of sufficient strength and design to withstand the planned staging and subsequent removal of soil.

- The bottom liner will extend at least 1.5 m (5 ft) beyond every edge of the waste soil pile.

- The use of an impervious man-made material will be implemented to cover the soil piles at all times when the soil is not being actively managed (i.e., placing, sampling, or removing waste).

- The cover will extend beyond the bottom liner and will be secured so that the staging pile soil is not exposed to wind, precipitation, or elements.

- The cover will be constructed of impervious material, sufficient to withstand Site conditions (e.g., sun, wind, cold, heat, and movement to expose or cover the working face).

- Waste will not be added or removed during inclement weather, such as periods of precipitation or high winds. Incompatible waste will not be stored in close proximity to a staging pile.

- Soil in the waste staging piles will be managed in a manner that will eliminate any potential run-on/run-off from entering the staging pile or run-off from contacting the soils, thus eliminating the need to contain run-off.

- Waste staging piles will be appropriately barricaded and signed.

- If containers will be used for staging of solid, nonflowing waste, they will be managed in rows with adequate aisle spacing maintained between rows to allow inspection and maintenance.

- Waste staging piles and containers will be inspected weekly.

The liner system could be a geosynthetic, asphalt, or concrete slab (minimum 10.16 cm [4 in.] thick). Geosynthetics could be 30-, 60-, or 100-mil-thick high-density polyethylene with or without a geosynthetic cushion. Compatibility between the liner material and expected waste will be a criterion in liner selection. Covers could be a geosynthetic material (e.g., high-density polyethylene, very low-density polyethylene, polypropylene, or hypalon) or a 15-mil scrim-reinforced high-density polyethylene. Compatibility between the cover material and expected waste will be a criterion in cover selection. Another criterion will be the ability to withstand sustained winds of 35-50 mph with appropriate anchorage.

Containers, if used for waste staging, will be selected to ensure compatibility with the waste being managed. Waste that may be managed in containers includes IDW (e.g., drill cuttings and debris, such as PPE and sample containers). The waste containers will be managed to enable inspection and ensure that there are no releases associated with their management.

4.3.8 Managing Waste in the Temporary Storage Units

The use of temporary storage units for IDW is not planned at the excavation sites. These waste containers will be "actively managed" (filled) and, when filled, transferred to ICDF within 5 working days. If this timeframe cannot be met and waste storage is required, a temporary unit will be established near the drilling site.

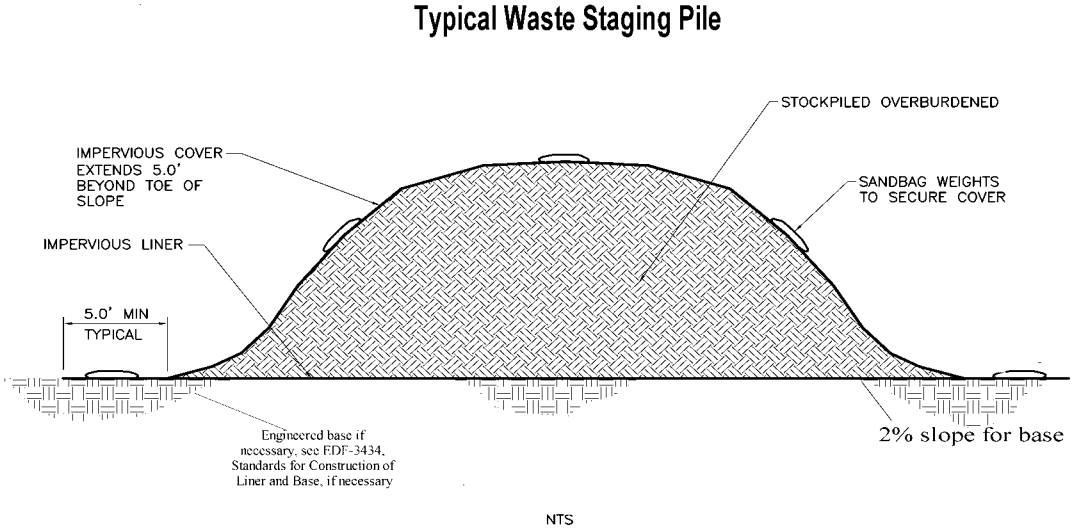

Figure 1. Cross section of typical waste staging pile.

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